UNITED STATES PATENT AND TRADEMARK OFFICE

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09/427,180	10/26/1999	JEAN-PAUL ACCARIE	1807.0804	2855

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EXAMINER
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Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>25 July 2003</u> .

2a)☒ This action is **FINAL.**   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-56</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-57</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☒ The proposed drawing correction filed on <u>25 July 2003</u> is: a)☒ approved b)☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All b)☐ Some * c)☐ None of:

        1.☒ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____ .

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>9</u> .

4)☐ Interview Summary (PTO-413) Paper No(s). _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: .

DETAILED ACTION

Response to Amendment/Arguments

1.   This Office Action is in response to the Response/Amendment filed on July 25th, 2003.

Claims 1-56 are now pending in the application.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3.   Claims 1-36 and 54-56 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Lo et al. (U.S.6,324,178) in view of **Ludtke et al.** (U.S.6,233,611).

        - In regard to claims 1 and 17, **Lo** discloses in Figs. 2A, 3A-B, 4 and in the respective

portions of the specification that the device and method for transferring data between domains

(*"sharing data between communication means"*) of differing data formats, i.e. between an IEEE

1394 communication domain and an Ethernet communication domain, via the bridge circuit (For

example see Col. 1, Lines 40-52); wherein the 1394 interface controller circuit (*"reception*

operation") of the bridge circuit transmits and receives data packets (*"receiving digital*

information") in first data packets format (*"first format"*, 'data packet compatible with the IEEE

1394 communication standard') from the nodes 210-218 (*"communication means using first format"*) via the IEEE 1394 serial communication bus (For example see Col. 4, Lines 47-64), the Ethernet controller circuit (*"transmission operation"*) of the bridge circuit transmits (*"transmitting digital information"*) and receives data packets in second data packets format (*"second format"*, 'Ethernet data packet') from the nodes 230-236 (*"communication means using the second format"*) via the Ethernet communication bus (For example see Col. 4, Line 65 through Col. 5, Line 14), and the bridge circuit using the Bridge software (*"reformat operation"*) assembles data packets from one data format to another data format (*"reformatting the received digital information"*) for transferring data packets between different domains (For example see Col. 3, Lines 26-42; Col. 5, Lines 24-35; Col. 5, line 62 through Col. 6, Line 15; Col. 7, Lines 39-53). **Lo** does disclose about the method for managing network data transfers with the processor involvement as disclosed in Col. 7, Line 61 through Col. 8, Line 5; with the co-pending application, Ser. No. 09/085,395, incorporated by reference, now patented (See LO et al.: U.S.6,185,607; See Abstract) and it is also obvious that the method for converting into another format and transmitting data is performed only if 'the links are available', e.g. *"communication channels are available"*, through both sides of the bridge circuit; but **Lo** fails to specifically disclose about the *"second available channel"* for transmission. However, such implementation is known in the art.

For example, **Ludtke** discloses that the media manager checks to see if the appropriate devices are available and determines the necessity of the conversion from one format into another format, and if necessary, the media manager will control and manage the flow in order to complete the request task for the data transfer operation via the channels of the transmission bus,

e.g. *"communication channels are available"*, through the use of applications and device control

module (For example see Figs. 1-6; Abstract; Col. 1, Line 32-40; Col. 3, Line 9-35).

Thus it would have been obvious to the person of ordinary skill in the art at the time of

the invention was made to combine the invention as taught by **Ludtke**, by implement the media

manager by using the device control module and application program instructions as disclosed in

Col. 4, Lines 12-67 into the program's instructions in **Lo**'s system as disclosed in Col. 7, Lines

28-38; with the motivation being to improve the ability to transfer data with different data

formats between domains and provide data flow management, services for client applications

between devices on the network.

- Regarding claims 2 and 18, **Lo** further discloses the data packets assemblage (*"reformat*

operation") is effected on the information of the first format following any initialization

operation (For example see Figs. 5, 8B-C; wherein the source address of the received data

packet, i.e. the IEEE 1394 data packet in Figs. 8B-C, is assigned upon the bus reset as disclosed

in Col. 4, Lines 59-64; and assembled (*"reformatted"*) in the source address of the header section

326 as described in details of Fig. 5; Col. 8, Lines 6-25).

- In regard to claims 3 and 19, **Lo** further fails to discloses the method of *"determining*

the need to reformat received digital information having the first format and, when reformatting

is necessary, the reformat operation and the transmission operation are performed on the

received digital information". However, such implementation is known in the art.

For example, **Ludtke** discloses that the media manager determines the necessity of the

conversion from one format into another format, and if necessary, the media manager will

control the format conversion for the data transfer operation (For example see Col. 3, Lines 30-

35; Col. 11, Lines 49-57).

Ludtke also discloses in Figs. 1-6 and in the respective portions of the specification, the

media manager manages applications and digital media devices (*"communication means"*), such

as video camera 10, video cassette recorder 12, set top box 13 and television 11, interconnecting

within the digital network through the IEEE 1394 serial bus architecture (*"shared

communication channel"*) as IEEE 1394 cables 15, 16 and 18 (For example see Col. 1, Lines 32-

40; Col. 2, Line 64 through Col. 3, Line 19) and manages the flow and format of data transfer

operations between the physical devices, including converting the data into a different format for

transfer as specified in Col. 3, Lines 9-19.

Thus it would have been obvious to the person of ordinary skill in the art at the time of

the invention was made to implement the media manager by using the device control module and

application program instructions as taught by **Ludtke** in Col. 4, Lines 12-67 into the program's

instructions in **Lo**'s system as disclosed in Col. 7, Lines 28-38; with the motivation being to

improve the ability to transfer data with different data formats between domains and provide data

flow management, services for client applications between devices on the network.

- Regarding claims 4-7, 14-15, 20-23 and 32-33, **Lo** further fails to disclose the method

of *"determination of the need to reformat takes into account of the source and destination

address, transmission channel identifier of the received digital information and bandwidth to be*

used during the second transmission operation ". However, such implementation is known in the art.

For example, **Ludtke** discloses the method of *"determination of the need to reformat takes into account of the source and destination address"*(wherein, after a bus reset or the change of the bus, the bus manager 70 of the media manager assigns new ID values to all devices and creates new DCMs 56 which includes the source and destination address of the DCM moduleID value as disclosed in Fig. 5, Col. 11, Lines 15-29; for all devices as disclosed in Col. 12, Lines 24-33, *"transmission channel identifier"* (wherein each DCM moduleID value is assigned by the bus manager for each device in the IEEE 1394 bus with multiple channels architecture as disclosed in Col. 1, Lines 32-37; Col. 16, Lines 32-42; Col. 17, Line 59 through Col. 18, Line 4) and *"bandwidth to be used"* (wherein the device control module manager 54 of the media manager manages and allocates the resource allocation as disclosed in Col. 5, Lines 19-27; Col. 13, Lines 18-23).

Thus it would have been obvious to the person of ordinary skill in the art at the time of the invention was made to implement the media manager and application program instructions for *"taking into account of the source and destination address, transmission channel identifier and bandwidth to be used in the determination of the need to reformat the received digital information"* as taught by **Ludtke** into the program's instructions in **Lo**'s system as disclosed in Col. 7, Lines 28-38; with the motivation being to improve the ability for providing data flow management and services for client applications between devices on the network.

- In regard to claims 8-9 and 24-25, **Lo** also fails to disclose the method of *"detecting the information of the first format in order to reformat the transmission data and stopping the reformatting performed on the received digital data having the first format"*. However, such implementation is known in the art.

For example, **Ludtke** discloses the method of *"detecting the information of the first format in order to reformat the transmission data"* (wherein, for example, the data flow manager in the media manager receives and analyzes the moduleID value of the request for obtaining the topology map, then finds the appropriate data format for the transmission data as disclosed in Col. 11, Lines 15-51) and *"stopping the reformatting performed on the received digital data having the first format"* (wherein, for example, the data flow manager 64 in the media manager controls the operation of reformatting the received data as disclosed in Col. 11, Lines 49-57).

Thus it would have been obvious to the person of ordinary skill in the art at the time of the invention was made to implement the method of *"stopping the reformatting performed on the received digital data having the first format"* as taught by **Ludtke** into the program's instructions in **Lo**'s system as disclosed in Col. 7, Lines 28-38; with the motivation being to improve the ability for providing data flow management and services for client applications between devices on the network.

- Regarding claims 10-11 and 26-29, **Lo** further discloses *"the communication channel is in accordance with standard IEEE 1394"* (*"IEEE 1394.1 standard"*; For example see the IEEE 1394 communication bus 240 in Fig. 2A) and *"the first communication channel and the second communication channel are not merged"* (For example see the IEEE 1394 communication bus

240 and the Ethernet IEEE 802.3 communication bus 250 in Fig. 2A), but fails to disclose that

"*the first communication channel and the second communication channel are merged*".

However, such implementation is known in the art.

For example, **Ludtke** discloses "*the first communication channel and the second*

communication channel are merged" (wherein, for example, all the devices such as the video

camera, the video cassette recorder, the set top box, the television, the computer are used in the

channel of the IEEE 1394 communication bus 15-18 of Fig. 1; Col. 1, Lines 32-40).

Thus it would have been obvious to the person of ordinary skill in the art at the time of

the invention was made to implement the method of "*merging the first and second*

communication channel" as taught by **Ludtke** into the **Lo**'s system with the motivation being to

improve the ability for providing an open and flexible services for client applications between

devices on the network by using the media manager as disclosed in Col. 4, Lines 59-67.

- In regard to claims 12 and 30, **Lo** further discloses the bridge circuit provides the bi-

directional data flow between the nodes of the first and second communication domains

("*isolating flows between two buses*") as disclosed in details of Fig. 2A, Col. 5, Lines 24-35; Col.

5, Line 62 through Col. 6, Line 8.

Ludtke also discloses the DCM manager 54 of the media manager controls the data flow

(See Abstract) by grouping the devices and subdevices (For example see Col. 6, Lines 19-27)

based on the abstraction service as disclosed in Col. 7, Lines 6-36.

- Regarding claims 13 and 31, **Lo** does discloses the transmission over the IEEE 1394

communication bus with the asynchronous mode, but fails to disclose the other transmission with

isochronous. However, wherein the IEEE 1394 can support both isochronous and asynchronous

format data transfer, and the implementation such as the transmission over the isochronous and

asynchronous format data transfer is known in the art.

For example, **Ludtke** discloses *"the transmission is performed in the isochronous and the*

other in asynchronous" format data transfer as disclosed in Col. 14, Lines 45-50; Col. 15, Lines

21-27; over the IEEE 1394 serial bus which supports both isochronous and asynchronous data

transfer as disclosed in Col. 1, Lines 15-20.

Thus it would have been obvious to the person of ordinary skill in the art at the time of

the invention was made to implement the method of *"the transmission is performed in the*

isochronous and the other in asynchronous mode" as taught by **Ludtke** into the **Lo**'s system

with the motivation being to improve the ability for providing an open and flexible services for

client applications between devices on the network by using the media manager as disclosed in

Col. 4, Lines 59-67.

- In regard to claims 16 and 34, **Lo** further fails to disclose the *"determination of*

sufficient resource before transmitting data; otherwise, considering the transmitted digital

information is lost ". However, such implementation is known in the art.

For example, **Ludtke** discloses the DCM 56 manages the resource sharing and resource

queuing (*"determination of sufficient resource before transmitting data "*) as disclosed in Col. 9,

Lines 26-39. **Ludtke** does not specifically disclose *"the transmitted digital information is*

considered to be lost when the resource is insufficient". However, **Ludtke** does notify the entity

when available as disclosed in Col. 9, Lines 26-39; or triggers the application when memory

buffers have been filled as disclosed in Col. 14, Lines 45-50 in the consideration of the

transmitted information to be lost for retransmission data.

Thus it would have been obvious to the person of ordinary skill in the art at the time of

the invention was made to implement the method of *"determination of sufficient resource before*

transmitting data; otherwise, considering the retransmitted information when the resource is

available" as taught by **Ludtke** into the **Lo**'s system with the motivation being to improve the

ability for managing data flow between devices on the network by using the media manager as

disclosed in Col. 4, Lines 59-67.

- Regarding claims 35 and 36, **Lo** does disclose *"the communication means is adapted to*

process several information flows in bidirection" as disclosed in Col. 5, Lines 27-35, but fails to

disclose *"the communication means is adapted to process several information flows in parallel"*.

However, such implementation is known in the art.

For example, **Ludtke** discloses *"the communication means is adapted to process several*

information flows in parallel" (wherein, for example, the event manager 62 broadcast the event

notifications to all interested parties as disclosed in Col. 9, Line 59 through Col. 10, Line 10 over

the IEEE 1394 serial bus which allows multiple applications to simultaneously transmit as

specified in Col. 1, Lines 32-37).

Thus it would have been obvious to the person of ordinary skill in the art at the time of

the invention was made to implement *"the communication means is adapted to process several*

information flows in parallel" as taught by **Ludtke** into the **Lo**'s system with the motivation

being to improve the ability for managing data flow between devices on the network through the

IEEE 1394 serial bus, by using the media manager as disclosed in Col. 4, Lines 59-67.

- In regard to claims 54-56, **Lo** also discloses in Figs. 4-5 and in the respective portions

of the specification for the memory unit ("*information storage means*") which can be read by a

computer or microprocessor storing instructions of a bridge software ("*computer program*") as

disclosed in Col. 7, Line 28 through Col. 8, Line 5.

Ludtke further discloses in Figs. 1, 4, and in the respective portions of the specification

for the information storage means which is removable, partially or completely (floppy disk,

memory which use to store the download program software (modules) as disclosed in Col. 6,

Lines 51-64; Col. 9, Lines 40-58), and can be read and executed by a computer or

microprocessor storing instructions of a computer program (For example see Col. 4, Lines 21-

22) in order to manage data flow and format of data transfer, services for client applications on

the general or specific devices on the network as disclosed in Col. 2, Lines 13-41.

Thus it would have been obvious to the person of ordinary skill in the art at the time of

the invention was made to use *the removable, partially or completely information storage means*

uses to store the program software and can read, executes by the microprocessor as taught by

Ludtke into the **Lo**'s system as engineering choices for the desired information storage on the

IEEE 1394 network.

4.   Claims 37-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Lo et al.**

(U.S.6,324,178) in view of **Ludtke et al.** (U.S.6,233,611), further in view of **Tanno et al.**

(U.S.6,064,772).

- In regard to claims 37-39, **Lo** does discloses the communication means is the IEEE

1394 communication bus, but fails to specifically disclose that "*the communication means is*

adapted with the digital video, JPEG 2000, and MPEG2 standard formats".

Ludtke discloses the IEEE 1394 serial bus supports general and specific media devices

such as video camera, video cassette recorder, set top box, television, etc. (See Figs. 1 and 4) for

audio/video network as disclosed in Col. 1, Lines 60-66; however, the digital video, JPEG 2000,

and MPEG2 standard formats are well known in the art for image coding method which can be

downloaded and installed as disclosed in Col. 9, Lines 40-58.

Tanno discloses in Figs. 1, 2, 5, and in the respective portions of the specification for

"*the digital video, JPEG 2000, and MPEG2 standard formats are used over the communication*

means" (IEEE 1394 standard bus in Fig. 1; Col. 3, Lines 49-58; Col. 5, Lines 23-33) and where

the "JPEG 2000 standard format" is just another version of the JPEG standard.

Thus it would have been obvious to the person of ordinary skill in the art at the time of

the invention was made to use "*the communication means is adapted with the digital video,*

JPEG, and MPEG2 standard formats" as taught by **Tanno** into the combination of **Ludtke** and

Lo's system with the motivation being to specify the ability for using the well known coding

format such as JPEG and MPEG over the communication bus such as IEEE 1394.

- Regarding claims 40-53, **Lo** further discloses in Figs. 2A-B, and in the respective

portions of the specification for the network (For example see Col. 1, Lines 8-15), computer,

display means, memory (Figs. 2A-B).

Ludtke further discloses in Figs. 1, 4, and in the respective portions of the specification

for the network, computer, memory, display means, modem, camera, video recorder, and

television receiver.

Tanno further discloses in Fig. 1 and in the respective portions of the specification for

the network, computer, memory, display means, camera, camcorder, video recorder, television

receiver, facsimile machine, copier, printer, scanner, photographic apparatus.

Thus it would have been obvious to the person of ordinary skill in the art at the time of

the invention was made to use *"the facsimile machine, copier, printer, scanner, photographic*

apparatus" as taught by **Tanno** into the combination of **Ludtke** and **Lo**'s system as the general

and specific media devices over the communication bus such as IEEE 1394 communication bus.

Response to Arguments

5.   Applicant's arguments filed on July 25th, 2003 have been fully considered but they are not

persuasive.

In regard to claims 1 and 17, Applicant argues that the combination of **Lo** and **Ludtke**

fails to disclose that the *"necessary resources are available to use the second channel for*

transmission of digital information with the second format". Examiner respectfully disagrees.

The combination of **Lo** and **Ludtke** does disclose that the media manager checks to see if the

appropriate devices are available and determines the necessity of the conversion from one format

into another format, and if necessary, the media manager will control and manage the flow in

order to complete the request task for the data transfer operation via the channels of the

transmission bus, e.g. "*communication channels are available*", through the use of application

programs and device control module (For example see **Lo**: Fig. 5; Abstract; Col. 1, Line 32-40;

Col. 3, Line 9-35) and as disclosed in Part 3 above of this Office action. Therefore, Examiner

concludes that the combination of **Lo** and **Ludtke** teaches the arguable features.

Claims 2-16 and 18-56 are rejected as in Part 3 and 4 above of this Office action and by

virtue of their dependence from claims 1 and 17.

Conclusion

6.   The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure.

      Sakakura et al. (U.S.5,625,795), **Accarie** (U.S.6,502,144) and **Lo et al.** (U.S.6,185,607)

are all cited to show devices and methods for improving data transfers communication

architectures over networks, which are considered pertinent to the claimed invention.

7.   Applicant's amendment necessitated the new ground(s) of rejection presented in this

Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

      A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this

final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Tri H. Phan, whose telephone number is (703) 305-7444. The

examiner can normally be reached on M-F (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Douglas W. Olms can be reached on (703) 305-4703.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 872-9314

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,

Arlington, VA, Sixth Floor.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 305-3900.

Tri H. Phan
September 30, 2003

DANG TON
PRIMARY EXAMINER